

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 October 2003 (16.10.2003)

PCT

(10) International Publication Number
WO 03/084346 A1

- (51) International Patent Classification⁷: **A23K 1/18**, 1/16, 1/175, A01N 63/00, A23K 1/00
- (21) International Application Number: PCT/EP03/03768
- (22) International Filing Date: 11 April 2003 (11.04.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
27.260 11 April 2002 (11.04.2002) UY
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: **SANITARY NUTRITIOUS DRINK FOR DOGS**

(57) **Abstract:** This application for an Invention Patent refers to a drink for dogs which, in addition to being a food supplement has a sanitary nature which breaks the biologic chain that contributes to the proliferation of various diseases produced by different larvae and particularly yellow fever and Dengue and its transmission vector, the *Aedes aegypti* mosquito. The invention also provides the same substance in powder form and also provides the processes for their preparation.

WO 03/084346 A1

REC'D 29 JUL 2003

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P02138/PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, Item 5 below.	
International application No. PCT/EP 03/ 03768	International filing date (day/month/year) 11/04/2003	(Earliest) Priority Date (day/month/year) 11/04/2002
Applicant TREDIN S.A.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

SANITARY NUTRITIOUS DRINK FOR DOGS

INTERNATIONALER RECHERCHENBERICHT

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

SANITARY NUTRITIOUS DRINK FOR DOGS

The present invention refers to a drink for dogs which, in addition to being nutritious has a sanitary nature in that it breaks the biologic chain which contributes to the proliferation of various diseases produced by different larvae and particularly yellow fever and dengue and its transmission vector, the mosquito "*Aedes aegypti*".

The particular problem posed is the reproduction of mosquitoes and black flies in domestic animal troughs.

The food components have the purpose of providing pets with substances fundamental for their metabolism and general health.

In addition the drink includes flavoring to ensure its acceptance by dogs, as well as preservers or stabilizers to allow for reasonable periods of stagnation. To the aforesaid sanitary effects, the drink includes a non-toxic larvicide, all of these in adequate proportions and concentrations, using drinking water or a substitute acceptable for veterinary consumption and dechlorinated. In case the water used as solvent includes an excess of one substance or other, for example minerals, the water shall be previously treated.

In case of using drinking or softened water, the elements constituting the drink shall be added to those

presented by the solvent. All the components of the
 drink for which protection is sought are detailed
 hereunder with the respective percentages and
 concentrations for one liter of solvent, including, in
 5 addition to the aforesaid components others the purpose
 of which in the drink are specified therein.

Vitamins and Minerals

Folic Acid	7.5×10^3 mcg	$\pm 20 \%$
Phosphoric Acid 85%	10 mg	$\pm 10 \%$
Biotine	1.5×10^3 mcg	$\pm 20 \%$
Calcium Carbonate	10 mg	$\pm 10 \%$
Magnesium Carbonate	20 mg	$\pm 20 \%$
Potassium Chloride	15 mg	$\pm 10 \%$
Sodium Chloride	15×10^3 mg	$\pm 20 \%$
Cobalt	0.25×10^3 mg	$\pm 20 \%$
Copper	1×10^3 mg	$\pm 20 \%$
Coline	8×10^3 mg	$\pm 20 \%$
D-Panthenol	1×10^3 mg	$\pm 20 \%$
Iron	5×10^3 mg	$\pm 20 \%$
Potassium Iodate	0.1×10^3 mg	$\pm 20 \%$
Manganese	0.75×10^3 mg	$\pm 20 \%$
Nicotinamide	3×10^3 mg	$\pm 20 \%$
Sodium Selenite	15×10^3 mcg	$\pm 20 \%$
Vitamin A	0.45 UI	$\pm 10 \%$

3

Vitamin B1	2.5×10^3 mg	$\pm 20 \%$
Vitamin B12	2.5×10^3 mcg	$\pm 20 \%$
Vitamin B2	1.5×10^3 mg	$\pm 20 \%$
Vitamin B6	1×10^3 mg	$\pm 20 \%$
Vitamin C	25 mg	$\pm 10 \%$
Vitamin D3	0.1 UI	$\pm 20 \%$
Vitamin E	2×10^3 mg	$\pm 20 \%$
Vitamin K3	4.5×10^3 mg	$\pm 20 \%$
Zinc	2×10^3 mg	$\pm 20 \%$

Preservers for the stabilization of the product

Nipagin	12.5 to 50 mg
Nipasol	12.5 to 50 mg
1,2 Benzisothiazoline	12.5 to 50 mg
Sorbic/Sorbate Buffer	300 to 750 mg
Sodium Benzoate	250 mg to 1 gr

5 These preservers may be used in combination, with exclusion of some of them, according to the environmental conditions of the place of application.

Amino acids

Lisine	1.5×10^3 mg	$\pm 20 \%$
Methionine	5×10^3 mg	$\pm 20 \%$

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Sweeteners

Glycerin and/or Sorbitol	100 to 200 mg
Glucose and/or Fructose	2.25 to 10 gr

Permitted Coloring Agents

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Flavoring Agents

Apple, banana, kiwi, cherry, orange, lemon, grapefruit, cola, pineapple, carrot, vanilla, almond, cacao and cream

Biologic Larvicide

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VETOBAC-AS [®] Abbott Laboratories or similar	7.5 to 15 x 10 ³ cc	± 15 %
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Buffer

Citric/Citrate	Cs 4<pH>6.5
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15 Solvent (1 liter)

Drinking softened deionized Water

The drink may be presented in liquid form for direct consumption or in powder for preparing it by adding the appropriate quantity of water.

5 The preparation of the liquid form consists in estimating the quantity of solvent (water) in accordance with the quantity of drink to be prepared and afterwards adding all the components either directly or previously diluted.

10 To prepare the powder, the component products are mixed and they dried by known methods, for example at low temperature by dehydration or equivalent methods.

Object

As it may be appreciated the canine drink is
15 formulated to supplement especially dry food currently in commerce, therefore the vitamin and mineral levels have been adjusted to avoid overdose when added to the levels existing in dry food.

Small doses of glucose contribute a little but quick
20 source of energy.

The level of sodium chloride has been reduced to the minimum. The formula incorporates a biologic larvicide, non toxic either for humans or animals. This larvicide

6
prevents the reproduction of mosquitoes and black flies
in troughs' water.

Differences with other formulas

This formula is characterized by small doses of
5 minerals and vitamins which, added to those in dry food,
do not cause intolerance in the animal organism.

The preservers doses have been balanced to maintain
the level of *Bacillus thuringiensis* active and stable
supported by microbiological tests, during 90 days, at
10 least.

Problems that are solved

On the other hand, due to the preservers added to
this novel drink, more stability of the formula is
obtained, allowing consumers to maintain it in animal
15 troughs for more time. At the same time, as *Bacillus*
thuringiensis is included, the possibilities for Dengue
and yellow fever to develop are inhibited.

CLAIMS

1. A drink for dogs having nutritious and sanitary nature and comprising in one liter of drinkable dechlorinated and deionized solvent the following components,
- 5 -vitamins and minerals, whose expressed quantities can vary in the range of $\pm 20\%$: Folic Acid 7.5×10^3 mcg, Biotine 1.5×10^3 mcg, Magnesium Carbonate 20 mg, Sodium Chloride 15×10^3 mg, Cobalt 0.25×10^3 mg, Copper 1×10^3 mg, Coline 8×10^3 mg, D-Panthenol 1×10^3 , Iron 5×10^3 mg, Potassium Iodate 0.1×10^3 mg, Manganese 0.75×10^3 mg, Nicotinamide 3×10^3 mg, Sodium Selenite 15×10^3 mcg, Vitamin B1 2.5×10^3 mg, Vitamin B12 2.5×10^3 mcg, Vitamin B2 1.5×10^3 mg, Vitamin B6 1×10^3 mg, Vitamin D3 0.1 UI, Vitamin E 2×10^3 mg, Vitamin K3 4.5×10^3 mg, Zinc 2×10^3 mg,
- 15 -vitamins and minerals, whose expressed quantities can vary in the range of $\pm 10\%$: Phosphoric Acid 85% 10 mg, Calcium Carbonate 10 mg, Potassium Chloride 15mg, Vitamin A 0.45 UI, Vitamin C 25 mg;
- 20 -preservers for the stabilization of the product: Nipagin 12.5 to 50 mg, Nipasol 12.5 to 50 mg, 1,2 Benzisothiazoline 12.5 to 50 mg, Sorbic/Sorbate Buffer 300 to 750 mg, Sodium Benzoate 250 mg to 1 gr, in which
- 25 these preservers may be used in combination, with

8

exclusion of some of them, according to the environmental conditions of the place of application;

- amino acids, whose expressed quantities can vary in the range of $\pm 20\%$: Lysine 1.5×10^3 mg, Methionine 5×10^3

5 mg;

-sweeteners: Glycerin and/or Sorbitol 100 to 200 mg, Glucose and/or Fructose 2.25 to 10 gr;

-permitted Coloring Agents;

-flavoring Agents: Apple, banana, kiwi, cherry, orange,
10 lemon, grapefruit, cola, pineapple, carrot, vanilla, almond, cacao and cream;

-biologic larvicide, whose expressed quantity can varies in the range of $\pm 10\%$: VETOBAC-AS® Abbott Laboratories or similar 7.5 to 15×10^3 cc; and

15 -buffer: Citric/Citrate Cs $4 < \text{pH} < 6.5$.

2. A drink according to claim 1, wherein the solvent is drinking water or a similar substitute acceptable for veterinary consumption and previously dechlorinated.

20 3. A drink according to the claim 1 or 2, wherein if the water used as solvent includes some substance in excess, like some mineral or other, the water is previously treated.

4. A powder preparation comprising all the
25 components according to claim 1 excepting the solvent.

9

5. A process for the preparation of a drink according to claims 1 to 3, wherein the quantity of solvent is estimated in accordance with the quantity of drink to be prepared and then adding to said quantity of solvent all the components either directly or previously and partially diluted.

6. A process for the preparation the product referred to in claims 1 to 4 to be provided in powder form wherein the component products are mixed and the mixture is then dried by known methods, for example at low temperature by dehydration or equivalent methods.

7. A product for dog consumption according to any of the preceding claims which can be provided in liquid form bottled in disposable or non disposable containers or in powder form packed in dry containers.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/03768

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A23K1/18 A23K1/16 A23K1/175 A01N63/00 A23K1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A23K A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, FSTA, MEDLINE, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 01 93692 A (BERTI LUIS ;PATRONE ATILIO (UY); SARAVIA ANDREA (UY); KOZAC GEORGE) 13 December 2001 (2001-12-13) claims 1-3	1-7
Y	US 4 915 943 A (GAGO IGNACE ET AL) 10 April 1990 (1990-04-10) column 2, line 9 - line 61; claims 1,10; examples	1-7
Y	US 6 270 760 B1 (DIDERICHSEN BOERGE KRAG ET AL) 7 August 2001 (2001-08-07) examples 6,7	1-7
A	US 5 017 389 A (GREEN SCOTT T) 21 May 1991 (1991-05-21) column 1, line 10 - line 65 column 2, line 40 - line 48	1-7
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *8* document member of the same patent family

Date of the actual completion of the international search

15 July 2003

Date of mailing of the international search report

30/07/2003

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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/03768

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 2 715 539 A (FISCHER INTERNATIONAL DEVELOPM) 4 August 1995 (1995-08-04) the whole document ----	1-7
A	WO 95 28854 A (DUKE MARC D) 2 November 1995 (1995-11-02) page 4, line 5 -page 5, line 8; examples 2,10 ----	1-7
A	US 3 285 748 A (GREENBERG RICHARD A ET AL) 15 November 1966 (1966-11-15) the whole document -----	1-7

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/03768

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0193692	A	13-12-2001	AU 6905201 A BR 0106742 A WO 0193692 A2	17-12-2001 04-06-2002 13-12-2001
US 4915943	A	10-04-1990	FR 2620306 A1 AT 69138 T BR 8804710 A CA 1300496 C DE 3866072 D1 DK 508388 A EP 0307992 A1 ES 2028261 T3 GR 3003711 T3 IL 87623 A JP 1100103 A JP 2525042 B2	17-03-1989 15-11-1991 18-04-1989 12-05-1992 12-12-1991 05-05-1989 22-03-1989 01-07-1992 16-03-1993 21-02-1993 18-04-1989 14-08-1996
US 6270760	B1	07-08-2001	US 6280720 B1 AT 113077 T AU 643741 B2 AU 7031291 A CA 2070676 A1 DE 69013520 D1 DE 69013520 T2 WO 9109129 A1 DK 506780 T3 EP 0506780 A1 ES 2064077 T3 FI 922812 A JP 3162707 B2 JP 5502162 T NO 922381 A US 5955367 A US 6280721 B1 US 5695976 A US 6303382 B1 AT 236985 T AU 699722 B2 AU 7362994 A BR 9407067 A CA 2167178 A1 CZ 9600096 A3 DE 69432464 D1 EP 0708834 A1 JP 9503124 T WO 9502695 A1 ZA 9405138 A	28-08-2001 15-11-1994 25-11-1993 18-07-1991 19-06-1991 24-11-1994 04-05-1995 27-06-1991 18-04-1995 07-10-1992 16-01-1995 17-06-1992 08-05-2001 22-04-1993 17-08-1992 21-09-1999 28-08-2001 09-12-1997 16-10-2001 15-04-2003 10-12-1998 13-02-1995 13-08-1996 26-01-1995 17-04-1996 15-05-2003 01-05-1996 31-03-1997 26-01-1995 23-02-1995
US 5017389	A	21-05-1991	WO 9220240 A1	26-11-1992
FR 2715539	A	04-08-1995	FR 2715539 A1	04-08-1995
WO 9528854	A	02-11-1995	AU 2393895 A WO 9528854 A1	16-11-1995 02-11-1995
US 3285748	A	15-11-1966	NONE	